A DESCRIPTION

OF A

NEW, CURIOUS,

AND

IMPORTANT INVENTION.

BY DOUGLAS BLY, M. D.

Rochester Evening Express Print.

NATURE THE TEACHER—MAN THE SCHOLAR!

AND

A NEW, CURIOUS,

AND

IMPORTANT INVENTION

THE RESULT.

DOUGLAS BLY, M.D.,

OF ROCHESTER, N. Y.,

Having spent several years dissecting and studying Anatomy, in New York, Philadelphia, London, Paris, and Vienna, and several more in teaching it, became familiar with the mechanism of Man, so

"WONDERFULLY AND FEARFULLY MADE,"

Where levers and pulleys are found more perfect than in machine shops, and valves more perfect than in steam engines—in a word,

MECHANISM IN PERFECTION,

And knowing the wants of those who have lost one or both legs, he set himself at work to supply them. He dissected a leg, separated the muscles, tendons, and joints, and spread them out on a table before him, and then went to work to

REPRODUCE NATURE IN ART,

And how well he has succeeded, he leaves the world to judge. The following is a description.

Fig. 4

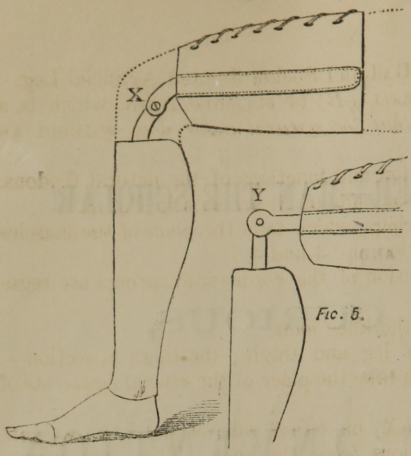


Fig. 5.

Fig. 1

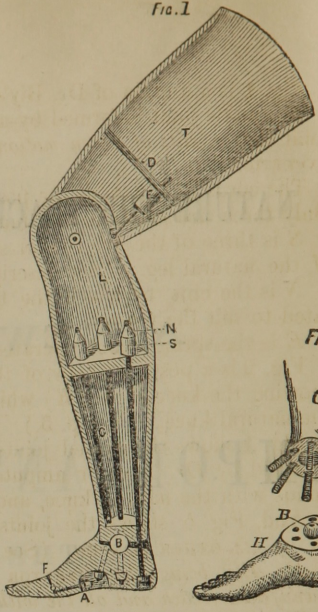


Fig. 3.

Fig. 6

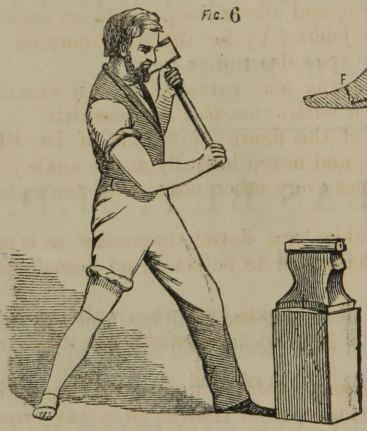


Fig. 2

Fig. 8

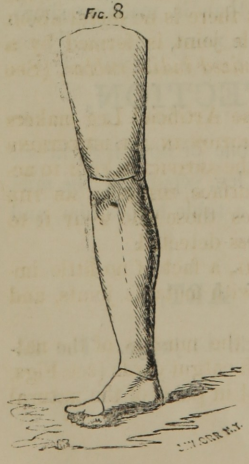


FIG 9

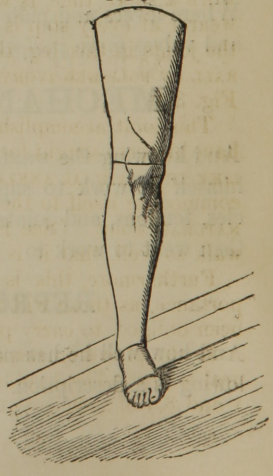


Fig. 1 is a section of Dr. Bly's Ball and Socket Jointed Artificial Leg. The ankle joint is formed by a BALL (*B*) OF POLISHED IVORY, which is a joint that *admits of every motion that the natural ankle does*, WITHOUT AN EXCEPTION.

The cords (*C*) assume the position and functions of the natural tendons. Only three are shown in full, but the ends of all are seen in Fig. 3.

S is three of the five rubber springs, which take the place of the muscles of the natural leg. (See description, pp. 3 and 4.)

N is the nuts, by which the tension of the cords and springs are regulated to suit the wearer.

E is the spring which operates the knee joint.

Fig. 2 is a posterior view of the leg and thigh ; the thigh in section—showing the knee cords (*K*) which take the place of the crucial ligaments of the natural knee. (See p. 5.)

Fig. 4 shows the curved joints (*X*) on either side of the knee, as constructed by *Dr. Bly*, for amputations *below* the knee. The curve corresponds with the natural knee, and allows the pants to set smoothly.

And, Fig 5 shows the joints (*Y*) for the same purpose, as constructed by ALL OTHER makers. (See description, p. 5.)

Dr. Bly, being the INVENTOR *and* PATENTEE, *has the* EXCLUSIVE *right to manufacture each and all the within described improvements.*

Fig. 6. The right leg of this figure shows one of Dr. Bly's Artificial Legs, worn by a mechanic, and flexed laterally at the ankle joint, the same as a natural leg. It assumes every other position of the natural leg with equal facility. (See p. 4.)

Fig. 8, represents the ankle joint flexed diagonally, as is often the case when one side of the foot happened to be placed on a small stone, or other obstacle.

Fig. 9, shows the action of the ankle joint when walking on the side of a hill, or on an inclined plain, the foot accommodating itself to the surface, like the natural foot.

The joints in this leg are made *without* iron or any kind of metal, therefore the leg is EXTREMELY LIGHT ; MUCH LIGHTER THAN ANY OTHER. The liability of metallic joints to rattle and make a noise, after the leg has been worn a short time, is well known, and the annoyance which it causes the wearer at every step is also well known. Now, as there is no metal about the joints in this leg, there is *no noise*. The ankle joint is formed by a BALL OF POLISHED IVORY, *plying in a socket of vulcanized india rubber*. (See Fig. 3.)

This joint accomplishes the great object which the Artificial Leg makers have hitherto sought for in vain, viz. : IT ADMITS OF MOTION IN ALL DIRECTIONS LIKE THE NATURAL ANKLE JOINT, and thereby allows the ARTIFICIAL FOOT to accommodate itself to the varied inequalities of the surface, THE SAME AS THE NATURAL FOOT. (See Figs. 8 and 9.) This enables those who wear it to walk so well, that it is not even suspected, much less detected.

Furthermore, this is a joint that requires NO OIL, a fact of no little importance, as those will testify who have worn legs with metallic joints, and been obliged to carry pocket oil cans.

In the places corresponding to those occupied by the muscles of the natural leg are placed rubber springs, (see Fig. 1,) with catgut cords (see Figs. 1 and 3,) of sufficient strength, extending downward in place of the natural

tendons ; and it is really interesting to see how well the action of the rubber springs imitate those of the natural muscles. These rubber springs or artificial muscles, together with the ball and socket joint, produce EVERY MOTION *of the* NATURAL LEG, WITHOUT *an exception.*

The springs are made of rail-road car spring rubber, and *used by* COMPRESSION, therefore it is *not* possible to overtax or break them ; I repeat, *it is* NOT *possible to break them.* This will be appreciated by those who have worn legs with metallic springs ; especially by those who have worn the Palmer leg.

The power, and action, of all the springs in this leg, are regulated simply by turning a nut, so that the WEARER MAY ADJUST THEM TO SUIT HIS OWN PECULIAR GAIT, with the greatest facility.

Then, instead of the mechanical motions given a limb by metallic springs, *the rubber springs impart easy, uniform motions* to the limb, *like those of the natural muscles,* which give it, when in use, a REMARKABLE LIFE-LIKE APPEARANCE.

In walking, when the weight of the body rests upon the ball of the foot, the spring representing the gastroenemius and soleus muscles is firmly compressed, and when the weight of the body is thrown forward on to the other foot, the spring rises and carries the foot forward to its place, with very little effort of the wearer.

In ordinary walking, with the toes turned outward, the foot, *like the natural one,* is flexed diagonally, or in the line of motion, *which makes a graceful step.* Artificial legs made heretofore, roll the foot to compensate for this diagonal flexion,—hence the uneven gait so often seen.

If the foot is turned out sidewise to brace the body, or to work at a bench, as in many kinds of mechanical labor, the ankle joint flexes *laterally* and the foot remains flat on the ground, and gives a *firm base of support,* which is of *great importance* in all kinds of labor. (See Fig. 6.)

Furthermore, when walking, if one side of the foot happens to be placed on a stone or elevation, or into a hole, the *mobility of the ankle joint allows the foot to yield just* ENOUGH *to accommodate itself to the inequality, and thereby* PREVENT *stumbling or falling,* which necessarily takes place more or less with all legs which do not admit of lateral and diagonal motion at the ankle joint. (See Figs. 8 and 9.)

The knee joint, for amputations above the knee, is articulated without any iron, steel or metal of any kind. The axis is made of vulcanized rubber, and the box in which it rests is so constructed that it NEVER requires bushing,—consequently, the annoyance and expense of sending the leg to the maker, to have the joints bushed every now and then, is avoided.

THE WEARING PARTS OF THE JOINT ARE ADJUSTABLE, AND MAY BE TIGHTENED AT ANY TIME, IN A MOMENT, AT THE OPTION OF THE WEARER.

Vulcanized rubber, the substance used in this joint, as well as the ankle, is peculiarly adapted to this purpose, on account of its GREAT HARDNESS, LIGHTNESS, *and its requiring* NO *oil.*

It is so hard, that pant, vest and coat buttons *were actually driven through an inch board without* being injured, when tested for the United States Navy ; this hardness gives it great durability.

Oil is of no use to it ; consequently this joint, like the ankle, " requires no oil."

The knee joint is operated by a spring, similar to those already described.

Its motions are limited and controlled by two cords which take the place of the crucial ligaments of the natural knee joint; consequently, there is no unpleasant jar caused by any solid parts coming in contact.

For amputations below the knee, no artificial knee is required, but there is a jointed steel strap on each side of the knee, which supports the leather lacer. In the construction of these straps, there is another nice little invention, *which, like the rest, takes* NATURE *for its guide.*

By laying a femur (thigh bone) on paper and drawing a line on each side, I obtained the exact curve of the lower end of the bone. Then I gave the jointed extremities of the straps (*X*) the *same curve*, consequently they work in harmony with the natural joint, and conform to the contour of the knee, which allows the pants to remain smooth and handsome when sitting with the knee flexed. (See Fig. 4.)

The square or angular straps (*Y*) used by all other makers, (represented in Fig. 5,) make a very bad appearance when the wearer is sitting, and are ugly, uncouth things, to say the least. They demonstrate what I have already stated, namely, *the necessity of taking* NATURE for a *guide* in *all* things pertaining to *Artificial Legs.*

Formerly the manufacture of artificial legs has been left entirely to common mechanics, and THOSE WHO HAVE UNDERGONE AMPUTATION, but who have little or NO knowledge of anatomy; consequently, the CONSTRUCTION of artificial legs HAS BEEN MERELY MECHANICAL, AND NOT ANATOMICAL.

They have imitated *some* of the motions of the natural leg quite well, *but others not at all.* Indeed it could hardly be expected that any one but an anatomist should be able to model a leg so close to nature, as to imitate all the varied motions of the natural leg.

To obtain an Artificial Leg, with ALL *the varied motions of the* NATURAL ONE, I have devoted much time, and by *frequent dissections, have accomplished the object.* I saw that nature used no bolts or pins to bolt or fasten the foot to the leg, but that she nicely rounded the bones at the joint, and held them in place by means of ligaments, tendons and muscles. Then, taking nature for my guide, I dispensed with all the hinges, pins, bolts, and cumbrous metallic joints generally used in artificial legs, and simply rounded and shaped the joint like the bones of the natural leg, and supplied the place of the natural muscles by means of india rubber springs, and the tendons by catgut cords of sufficient strength, and the LEG WAS A COMPLETE COPY OF NATURE. Like every thing which takes nature for its guide, it is very simple, and not liable to get out of order.

In form the limb is always made to correspond exactly with the natural one, then it is covered with a delicate skin, which is enameled with the most delicate tinted flesh-colored enamel, shaded to suit each particular case; and the whole is so natural in appearance, and so life-like in all its motions, that it is often mistaken for a natural limb.

It is adapted to all amputations, either above or below the knee.

Let it be remembered that each and every device herein described, is patented to me in the United States, England and France; and that whoever manufactures one of them within these countries, does it at his peril; also, that whoever uses one, incurs the same risk unless he purchases it of me.

DOUGLAS BLY, M.D.
ANATOMIST AND SURGEON.

This leg was placed in competition with other Artificial Legs, for the first time, at the New York State Fair, October, 1858, and the following is the report of the committee :

" DR. D. BLY, ROCHESTER.

"Artificial Leg. ☞ Award, DIPLOMA and LARGE MEDAL.

" This 'Artificial Leg,' presented to your Committee for inspection, was brought in direct competition with 'Palmer's Artificial Leg,' before noticed in this Report ; we were, therefore, necessarily required to decide relative to their *comparative* merits—and, after a full investigation of their mechanical construction, materials used, and the adaptation to the accomplishment of the object of their creation, found no difficulty in arriving at a conclusion satisfactory to ourselves ; and which, we are confident, will be adopted or approved by our unfortunate fellow-citizens who are compelled to supply the want of *natural* by *Artificial* Legs. We are *unanimous* in the opinion that the Leg presented by DR. BLY is the *best*, and that it possesses advantages over the 'Palmer Leg' very desirable to the user, and creditable to its maker. These are :—1st. Its *weight* is less. 2d. No *metallic springs* are used in its construction, demanding frequent repairs. 3d. But *one* metallic bolt (that at the knee joint) is used.* 4th. The ankle joint is so constructed as to admit of a lateral, rotary, or side motion of the foot (in exact imitation of that in the natural ankle), thereby enabling the wearer to walk upon uneven surfaces, or step upon small stones, or other light obstructions, with less liability to stumble or fall—lighten the tax upon his *caution* as to *where* and *how* he steps to secure safety, and, in an equal ratio, diminish the physical effort necessary to its use.

" This Leg combines the desirable qualities found in Palmer's, with the *improvements* above enumerated, and is a nearer approach, in its anatomical structure and motions, when in use, to its 'model,' the natural Leg.

" We award the First Prize to Dr. Bly, for his *improvements*, and the evidence of *progress* in the mechanic arts, found in the construction of his 'Artificial Leg.'"

I certify that the foregoing is a true abstract from the original Report.

A. P. SIGOURNEY,
Chairman of Committee.

---

* I have since done away with this iron bolt, and now make them without any iron whatever.

The following are a few of the many testimonials which might be given :

J. H. DAVIS.

LE ROY, N. Y., APRIL 2, 1859.

DR. BLY :

Dear Sir—It gives me pleasure to inform you that the leg I bought of you last September is of the greatest service to me. I am in the grocery business, and on my feet from morning until late at night. I can roll and lift barrels and boxes of goods out and into the wagon and cellar, deliver goods, and do everything pertaining to my business. The leg is all right, and works well, though I have not put a drop of oil into the ball and socket-joint since I got it. I wish I had one of your Improved Knee-Joints, so I would not be obliged to use any oil at all, for it is a great nuisance. You can recommend the Ball and Socket, or Universal Motion, at the ankle-joint, as highly as you like, for it cannot be over rated.

Most truly and thankfully yours, J. H. DAVIS.

A. W. GILBERT.

TULLY, ONONDAGA CO., N. Y., March 30, 1859.

DR. D. BLY :

Dear Sir—From a sense of duty to you, and *those who have been unfortunate*, like myself, I send you the following, which you can make any use of you think best, and you may refer to me whenever you choose.

I am now happy and comfortable, and I attribute it all to the Artificial Leg which I purchased of you last December. I have worn the limb every day since, and have experienced no trouble. Some of the cords I unscrewed a little, and others I screwed up a little, as you told me, until I got it to suit my particular step or gait, and it has run like clock-work ever since. I have not put a single drop of oil in either the knee or ankle-joint ; yet, if I am not mistaken, it works better than when I got it. The limb sets perfectly easy, and does not hurt the stump, as other limbs do which I have seen in use. The mobility of the ankle-joint prevents the stump from prying against the socket when the foot happens to be placed on any inequality.

The Palmer and Selpho Legs are both in use about here, but it is the prevailing opinion that yours is the best, because I walk the best. They walk quite well on a carpet, except that their step or gait is not quite as even and natural as mine, and I think it is because they lack the diagonal motion at the ankle ; this may be a small matter to you, but it is a great one to us. But when we come to walk out of doors, on all sorts of rough and uneven places, then the SUPERIORITY OF THE BALL AND SOCKET-JOINT IS UNMISTAKEABLE—*it is the thing*. It surpasses my expectations, and I would not be without it for any consideration.

Yours truly, A. W. GILBERT.

MICHEAL RYAN.

NASHVILLE, TENN., Sept. 10, 1859.

DR. BLY :

Dear Sir—I send you a few lines for the benefit of those who are situated as I was before I used your newly-invented Artificial Leg. I had heard that you had invented a leg by dissecting ; and, that by taking Nature for your guide, you had made a leg which has all the flexibility and motions of the natural leg, which makes it remarkably useful and life-like ; still I was afraid to write to you to make me one, because I thought the story too good to be true. And I should not have got one had it not been for Dr. Carow, of Nashville. He told me that he had seen it, and that it was really modelled after the natural leg, and that it is one of the finest things ever invented, and I had better get one. I took his advice, and I am a thousand times obliged to him for his kindness. Notwithstanding all that I have heard and read, my highest expectations are more than realized. And to all who have any doubt after reading this, I say come and see my leg, or go to Dr Bly's establishment, and see for yourselves, for in this case seeing is believing.

Respectfully yours, MICHAEL RYAN.

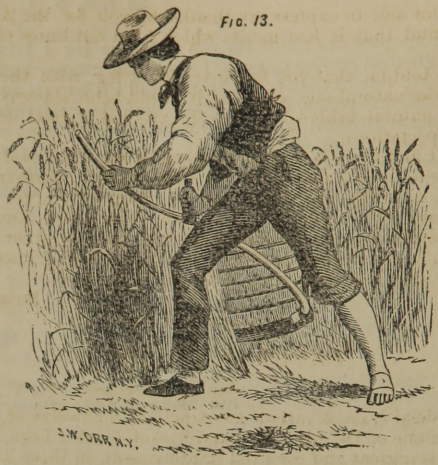


FIG. 13.

H. J. DRAKE.

CHELSEA, MICH., Aug. 15, 1859.

DR. D. BLY:

Dear Sir—After so long a time, I write to inform you how I am getting on with the Artificial Leg you made me. I have been wanting to give it a fair trial. I cannot find words to express my satisfaction.

I have mowed my grass, and made my hay myself—and that, too, on the marsh, where it was very boggy.

I have cradled my oats myself (see fig. 13), and raked and bound them. In fact I can do most all kinds of work.

I liked to forgot to tell you about threshing. I have been all round the neighborhood threshing; and by thus changing work, have got help to do my own threshing. Doctor, if I could not get another leg of this kind, I would not take one thousand dollars for this one. Most sincerely and thankfully yours,

H. J. DRAKE.

H. BACKUS.

BATAVIA, N. Y., Aug. 1, 1859.

DOCT. BLY:

Dear Sir—For the benefit of *Railroad men*, I send you this testimonial in relation to the Artificial Leg you made for me.

I am an engineer. I run a locomotive on the New York Central R.R.

I have tried a number of artificial legs of different construction, and yours enables me to work about my engine with more ease and facility than any other. The mobility of the ankle-joint, which allows the foot to adapt itself to the motions of the engine, also to the unevenness of the ground in jumping off, is of great importance to railway men.

I have had it a year, and it has given me no trouble in breaking or getting out of order, though it has had some severe tests in jumping off the engine.

H. BACKUS.

BONEVENTUE GROSS.

St. Louis, Mo.

Dr. Bly:

Dear Sir—I am not able to express my thanks to you for the Artificial Leg you made for me. I find that it has merits which I did not know of until I began to use it.

The doctors here told me that you had invented a leg, with the ankle-joint patterned right after the natural one, and that it would bend sideways and every way, just as well as the natural ankle—therefore I expected a good deal; still it more than fulfills my expectations.

Besides all this, I find there is no iron or metal of any kind used in the construction of the ankle-joint, which makes the leg *extremely light;* furthermore, the nature of the material is such that no oil is ever required. Then, for amputations like mine—below the knee—the curved joints on either side of the knee are a great improvement on the ordinary square or angular joints, used by other makers.

When I sit down my pants set perfectly smooth over the knee, and I am not obliged to put my other leg across the joints to hide them.

Boneventue Gross.

EASTMAN COLBY.

Ogden, Monroe Co., N. Y., Sept. 1, 1859.

I have used Artificial Legs of various constructions for twelve or fifteen years, and latterly, have worn one of Dr. Bly's Ball and Socket-Jointed Legs, which, in principle and operation, is a great and essential improvement on those heretofore used.

The motions of this limb are more natural than any I ever saw before The universal motion at the ankle-joint is worth everything to a farmer; it enables me to go about my farm, and do my work, no matter how uneven the ground. I can chop, make rail fence, dig ditch, and do most all kinds of work, though my leg is amputated above the knee.

It is now more than a year since I obtained this leg, and it has given me no trouble in breaking or giving out, as all my others have done.

Eastman Colby.

A PALMER LEG REMODELED AND IMPROVED.

Buffalo, Sept. 17, 1859.

Dr. Bly:

Dear Sir—You ask the privilege of publishing my letters. You can do so, if you like. * * * * *.

Yours, etc., William Bushnell.

Buffalo, March 12, '59.

Dr. Bly:

Dear Sir—I have been wearing the Palmer Leg for about four years, during which time I have had two—both made by B. F. Palmer, of Philadelphia. I have had a great deal of trouble and vexation, caused by breaking the instep springs. The instep spring in my second leg has just broken again, which leaves me entirely destitute—my first leg having been completely worthless for some time. I am satisfied that metallic springs cannot be depended upon in an artificial leg; therefore I would like to have you put your patent rubber spring into my second leg. If you will, please inform me by return mail.

Most respectfully yours, William Bushnell.

Buffalo, Sept. 10, 1859.

Dr. Bly:

Dear Sir—I am still wearing my Palmer Leg with the rubber springs you put in for me. I like them very much. It makes one feel mighty comfortable to know that *he has springs that* CANNOT be broken. Besides, they have improved my walking very much, the action of the rubber being so much more natural.

Most respectfully yours, William Bushnell.

Fig. 12.

LORENZO TAYLOR.

ELBRIDGE, ONONDAGA CO., N. Y., Sept. 1, 1859.

Dear Sir—I have worn the leg you made me last May every day since; and in justice to you, *and those who are suffering as I was*, that they may not be imposed upon, I feel it my duty to let it be known how useful and important your invention is. I feel it more on account of a letter I received from Palmer & Co. before I got my leg.

I would not like to repeat what they say about your leg, therefore I send you their letter—you can read for yourself. If I had not been near by, so I could go and see your leg for myself, I should not have bought one, after reading their letter, but should have got one of theirs, which has only a single up and down motion at the ankle-joint, instead of the ONE I NOW HAVE, WHICH ADMITS OF EVERY MOTION OF THE NATURAL ANKLE.

If I happen to step on a sidling place, or on a stick or stone, the ankle-joint yields just enough to let the foot accommodate itself to the inequality, and thereby prevents all stumbling or inconvenience.

I work in a saw-mill, where I roll logs (see fig. 12), carry lumber, tend the saw, and do all kinds of work. When lifting, I sometimes put a strain on the leg, equal to the weight of two or three men, but I find that the leg can stand all I can lift.

The first week that I wore the leg, I walked with one crutch; the next week I used one cane, and the next week I lost my cane so often that I concluded to throw it away altogether.*

With much gratitude, I subscribe myself,

LORENZO TAYLOR.

---

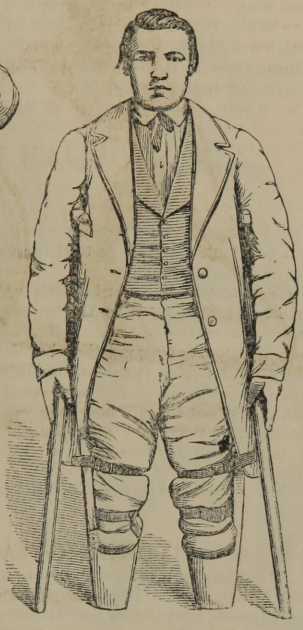
* The third week, he "lost his cane so often."—that sentence alone tells the whole story, to a thinking man

HENRY EITT, of Rochester, N. Y.

FIG. II

AS HE IS.

FIG 10



AS HE WAS.

BOTH LEGS AMPUTATED

ROCHESTER, N. Y.

Dear Sir—I wish to state a few facts, which I hope you will publish for the benefit of those who have had the misfortune to undergo amputation of one or both legs.

For two long years, after I had my legs amputated, I dragged out a miserable existence, walking on my knees, during which time I was shown a great many artificial legs; and, after seeing and learning all that I could, I determined to procure a pair of Dr. Bly's Ball and Socket-Jointed Legs. And now, after using them, I can assure those wanting artificial legs, that their superiority over all others that I have seen, is decided and positive.

The great improvement consists in the mobility of the ankle-joint, which bends sideways and diagonally, and every way the *natural* ankle does. The side motion enables me to keep my balance with the same facility that others do, by allowing the body to sway to one side or the other, as the case requires, particularly when on a steamboat, or on the cars. It takes away the stiffness and uncertainty, or feeling as if on stilts, which there is when on TWO legs, which have NO lateral motion at the ankle. My motions are so free and easy, and I walk so well, that many are not willing to believe that I walk on TWO ARTIFICIAL LIMBS, until I show them. I live a little more than a mile and a half from the post-office, and I am in the habit of walking there, and about town, for an hour or two, and then home again, without a cane; and I ask no one to wait for me, either. If there is any one who does not believe it, let him try me.

I am now learning a trade, and am comfortable and happy.

HENRY EITT.

ROCHESTER, Dec. 27, 1859.

Sometime in September last Dr. Bly called at my Picture Gallery and asked me if I could take the likeness of Mr. Eitt, a man who had lost both of his legs, and was wearing two of the Dr 's "Patent Legs." I said I could in half an hour. A little before the time expired, I went down to the foot of the stairs to see if they were coming, and see how the man walked. In a minute or two a man passed me and went up stairs; near him was the Doctor. I asked where the lame man was. "There he is," replied the Doctor. Said I, "he does not go lame." "Well, that is the man," said the Doctor. And I hereby state that Mr. Eitt, with two Artificial Legs, could and did, without the aid of a cane, walk in such a manner that no one would notice any lameness. He went up and down stairs without inconvenience. MATSON OTIS,

Artist and Proprietor of Gallery, No. 14 State St., Rochester.

WILLIAM LEAL.

LAWRENCEBURG, INDIANA, Aug. 29, 1859.

DR. BLY:

Dear Sir—My leg operates very satisfactorily. My friends are all pleased with its natural motion; in fact, some have told me they could see no difference in the motion of my feet when walking.

I can walk on boulder pavements with ease—your Ball and Socket Ankle-Joint allowing the foot to adjust itself to the unevenness of surface very much like the natural one.

The whole appearance is so good that but few notice that I have an artificial leg. In three weeks after leaving your establishment, I traveled about twelve hundred miles, and have been in company with people for half a day, in hotels, cars, and stages, who did not suspect but I had both my natural legs.

Resp'y yours, etc., WILLIAM LEAL.

A PALMER LEG REMODELED AND IMPROVED.

DETROIT, MICH., Aug. 3, '59.

DR. D. BLY:

Dear Sir—I this day send you by express one of my Artificial Legs, manufactured by Mr. Palmer, of Philadelphia. I wish you to insert your patent India-rubber springs and knee joint. I have worn Artificial Legs between thirty and forty years—Bartlett's, Palmer's, and Thomas', and one other, whose name I cannot recollect—all of them having metallic springs, which are a perpetual source of trouble and expense, in consequence of their breaking so often. Another great source of annoyance with all the Artificial Legs I have seen or worn, is the wearing of the bolts and boxes, producing a clanking or rattling noise; the only remedy being to send the limb to the manufacturer, or some other mechanic, to have the boxes bushed. I saw a specimen of your Artificial Legs last Spring; gave it a thorough examination, and it seems to me you have found a remedy for both of the difficulties alluded to.

Please make the necessary alteration as soon as convenient, as I am in continual fear, when one of my legs is gone for repair, that the springs in the other may break at any time, and compel me to take to my crutches.

Yours truly, E. ROOD.

DETROIT, MICH., Sept. 19, 1859.

DR. D. BLY:

Dear Sir—My Palmer Leg, into which you put your patent springs and knee-joint, came in due season. I am extremely well pleased with the improvement. The action of your springs is remarkably pleasant. There is a LIFE-LIKE ELASTICITY IN THEM, which gives a very fine motion to the leg, far superior to the metallic springs.

Your method of tightening the knee-joint is admirable. It is as much better than bushing with buckskin, as the rubber springs are better than the metallic.

I am so well pleased that I shall send you my other Artificial Leg, to have your springs and knee-joint inserted, as soon as its instep spring breaks again.

Yours respectfully, EZRA ROOD.

All other legs of similar construction improved in the same manner, on reasonable terms.

DR. T. F. MILLER, of Louisville, Ky.

AS HE IS. AS HE WAS.

LOUISVILLE, KY., Dec. 10th, 1859.

DEAR DOCTOR:—Again I send you my warmest thanks, for setting me on my feet again. I also feel very thankful to the doctors here for sending me to you. They told me you had constructed a leg on anatomical principles, which I hardly thought possible, but now I am convinced. The Ball and Socket joint at the ankle, allows my feet to accommodate themselves to the varying inequalities of the ground, so well, that not one in a hundred can tell, by seeing me walk, that I walk on anytning but my natural legs. This has been tried over over again. It is a great triumph I can walk on rough ground, side hills, slanting sidewalks, cobblestone pavements, and up and down stairs without difficulty, not even requiring a cane. In going up and down stairs I use my feet alternately, the same as other people. When I had had my legs only three weeks, I walked a mile and a quarter in 22 minutes, and went up one flight of stairs in the time. A few days ago I walked over the Oakland Race Course—one mile—in fourteen minutes. Dr. Knight, D. S. Benedict, Thomas Brown, Capt. McPherson, and others, saw me do it. I do not know whether you call that good walking or not, but it suits me pretty well.

I, and my friends, will wager $5,000, that I can walk a greater distance in a given time, than any man living who walks on two artificial legs of any other patent or coustruction.

If there is any one in this region who wants an artificial leg, send him to me, for I am a better certificate than can be published

Most sincerely yours, T. F. MILLER.

☞ Mr. J. F. Miller had the misfortune in California some years ago to have both legs cut off by a threshing machine, and subsequently resided in this city, but was nevertheless able to move about on the remaining joints. During the past year Mr. Miller has procured a pair of artificial legs made by Dr. Bly, of Rochester. We knew Mr. Miller well when he resided here before, and yesterday a friend took us to his office. We found him sitting in a chair on entering, and he immediately arose and coming up to us received us very cordailly. Our friend had not informed us who he was, and we did not recognize him.—We knew the face, but having been accustomed to look down upon him, we now had to look up in addressing him, and he moved about on his artificial "understandings" with an ease that challenged detection. The change was so great we had to be told who he was.—*Louisville Journal.*

This leg was exhibited at the New York State Fair, at Albany, October 4, 1859, and the following is the Report of the Committee:

ARTIFICIAL LEGS.—History teaches us that now and then an ultimatum will be accomplished in some given direction of scientific research or mechanic art, or both combined. This, it seems to us, is the case in regard to Dr. Bly's Artificial Leg. Nothing can, possibly, more entirely imitate and replace the natural leg. It is light and strong—it is capable of adjustment to the stump without inconvenience to the wearer—it is symmetrical and elegant in its proportions, and when covered with a stocking would not be detected. But its crowning excellence consists in the flexibility and perfectly natural motion of the joints, and the adaptation of the foot to any position or any uneven surface, operating in all respects like the natural one, and the motion or action of the leg in the act of walking, on account of the rubber springs or muscles with which it is furnished, instead of hitching or dragging as is generally the case, is elastic, buoyant, and natural. And we repeat, it is difficult to surmise what further can be accomplished in this direction. The doctor had a gentleman in company with him who wore two of them, and it was really surprising to see with what ease, with only a cane, and sometimes without even that aid, he could not only walk about, but could do so easily and gracefully. The doctor has not only proved himself a first class inventor, but a public benefactor also, and we feel sure that those who have been so unfortunate as to be deprived of either or both of their legs, will learn by the use of his artificial ones to so regard him. We award him the first premium.

I certify that the foregoing is a true extract from the report of Committee, No. 72d, of the N. Y. State Fair, held at Albany Oct. 4th, 1859.

S. A. BUNCE, Sec'y to Com.

PARTICULAR DIRECTIONS TO THOSE WISHING LIMBS.

No weight or pressure is ever taken on the end of the stump, or other sensitive parts, with this leg. It can be fitted so as to be easy and comfortable for all cases.

To avoid an unnecessary journey, or great detention, write a clear and minute statement of the case, and wait an answer. A blank for measurement will be sent, and the time appointed to come and have the leg fitted.

Keep the stump bandaged tightly, to condense the cellular tissue, and move the joint, more or less, every day, to insure full, free, and easy motions. Address, with postage stamp enclosed,

DOUGLAS BLY, M. D.,

No. 9 STATE STREET, ROCHESTER, N. Y.